

DOCUMENT RESUME

ED 297 534

EC 210 385

AUTHOR Sheeline, Mary C.
TITLE Positive Effects of Implementing Special Education Strategies in the General Classroom.
PUB DATE May 88
NOTE 30p.
PUB TYPE Speeches/Conference Papers (150) -- Information Analyses (070) -- Viewpoints (120)

EDRS PRICE MF01/PC02 Plus Postage.
DESCRIPTORS Cognitive Development; Cognitive Style; *Educational Methods; Interpersonal Competence; *Learning Disabilities; *Learning Strategies; *Metacognition; Prevention
IDENTIFIERS *Regular and Special Education Relationship

ABSTRACT

The growing move to reintegrate special education within the general education system forms the background and rationale for this paper's proposals. Discussion includes the suggestion that general education students can benefit from explicit instruction in learning strategies which have been primarily used with only learning disabled students. Specifically recommended are strategies which train students to develop their metacognitive and social cognitive awareness and academic skill levels. It is argued that explicit exposure to learning strategy training at the elementary and intermediate levels will serve a variety of positive purposes, from individual learning empowerment to prevention of secondary level academic failure. (Author)

* Reproductions supplied by EDRS are the best that can be made *
* from the original document. *

U.S. DEPARTMENT OF EDUCATION
Office of Educational Research and Improvement
EDUCATIONAL RESOURCES INFORMATION
CENTER (ERIC)

Special Strategies

1

This document has been reproduced as
received from the person or organization
originating it.

Minor changes have been made to improve
reproduction quality.

Points of view or opinions stated in this docu-
ment do not necessarily represent official
OERI position or policy.

**Positive Effects
of Implementing Special Education Strategies
in the General Classroom**

Mary C. Sheeline

Dominican College of San Rafael, CA.

SPECIAL STRATEGIES IN THE GENERAL CLASSROOM

"PERMISSION TO REPRODUCE THIS
MATERIAL HAS BEEN GRANTED BY

Mary C.
Sheeline

TO THE EDUCATIONAL RESOURCES
INFORMATION CENTER (ERIC)."

BEST COPY AVAILABLE

Author

Mary C. Sheeline is a candidate for the Masters of Science in Special Education, with her emphasis in learning disabilities, at Dominican College of San Rafael, California. She holds three California teaching credentials in general and special education.

The author's educational philosophy lies in the statement: Education is education is education. All students have areas of strength and weakness. All students can learn. Why is the educational system so divided? Our system has within it the knowledge to provide educators with the necessary training and structural supports to serve the needs of all students more effectively.

Abstract

The growing move to reintegrate special education within the general education system forms the background and rationale for this paper's proposals. Discussion includes the suggestion that general education students can benefit from explicit instruction in learning strategies which have been primarily used with only learning disabled students. Specifically recommended are strategies which train students to develop their metacognitive and social cognitive awareness and academic skill levels. It is argued that explicit exposure to learning strategy training at the elementary and intermediate levels will serve a variety of positive purposes, from individual learning empowerment to prevention of secondary level academic failure.

Introduction

The field of special education has existed as a subsystem of general education, a fact that has been recognized for decades. Increasing concern among educators, administrators and policy-makers about the inefficiency of maintaining the dual system has resulted in an examination of possible ways to merge special and general education into a unified system. The merger movement, although proposed as early as a decade ago, is only recently gaining favor among a greater majority of educators nationwide.

A proposal to unify the systems of special and general education raises a number of problematic concerns. Such concerns include personnel preparation, reorganization of service delivery structures, funding for schools and alteration of the classification system so that the unique needs of all students, regardless of category or label, are met.

Recently, the search for effective teaching practices and for the merger movement's feasibility has attained parallel importance. There has been specific recognition among general educators of the need for increased effective intervention strategies to reach low-achievers in the general classroom. Only in the past few years have professionals acknowledged the possibility that instructional strategies used in special education may be effectively used in the general classroom.

Certainly, modified instructional approaches and adapted curricula have characterized mainstream classrooms in recent

years. However, only a handful of general classrooms have been designated with mainstream status. Many general classrooms which are not mainstream classes may have a high number of students who are at-risk for academic failure. Clearly, acknowledgement must be made of the need for assistance in implementing effective instructional strategies in the general classroom.

Typically such classrooms contain a broad spectrum of abilities, ranging from students with learning disabilities to average and gifted students. An area of common concern to both general and special educators is the delivery of effective instructional approaches, including adapted curricula and strategic interventions which foster favorable learning attitudes and environments.

Understandably, special and general educators have focussed on their respective responsibilities. Special education teachers and specialists, working within the compartmentalized fabric of Public Law 94-142's "least restrictive" mandate (*Federal Register, 1977*), have served thousands of students having academic, emotional and physical problems. General education teachers have continued to serve the country's majority, knowing full well that their efforts are sometimes lost in an imperfect system. Now, the time has arrived for the working knowledge within both systems to join together and recognize each other's efforts to maximize the academic potential of all students.

Assuming that such a merger begins to occur in the coming decade and assuming that research generated from the studies of mainstreaming is examined with renewed intent, let us begin to ask ourselves the following questions.

How can we integrate practical knowledge of the processes of learning into the content of the general classroom so that all students benefit? Is it true that methods of teaching the learning disabled also benefit normal and high achieving students?

Statement of the Problem

The purpose of this paper is to illustrate the positive effects of implementing instructional strategies in the general elementary classroom.

Positive effects can be defined as favorable social and academic results experienced by all students within the general classroom environment.

Instructional strategies refer to model practices originally created and implemented to meet the learning needs of students with mild to severe learning disabilities.

General elementary classroom refers to the public school setting which provides daily instruction to general elementary students in grades kindergarten through sixth.

In this paper, students in the general classroom may include a range from mild and severely learning disabled to low, normal and high achievers, including students identified as gifted.

Normally achieving students, who demonstrate age-appropriate levels of academic learning and motivation, constitute a majority of students in many general elementary classrooms.

Rationale

Widespread debate currently exists about the movement to merge general and special education. A rationale to support the use of effective special strategies in the general classroom is valuable yet admittedly visionary, at present. The debate is replete with questions focussed on the serious need for an underlying theory of education (Skrtic, 1987). Rising from within the controversy over the future of American education is a cry for definition and direction from the field of special education.

Granted, the need for debate is of the highest priority. But the fact remains that no matter how educational services are restructured, general classrooms will always contain a diversity of abilities and disabilities.

A powerful rationale for the merger of special and general education was forwarded by Stainback and Stainback (1984). Their rationale speaks with the prophetic view that a dual education system is unnecessary and inefficient. As professionals, educators have the knowledge and resources to fully accept and teach, nondiscriminately, to all exceptionalities within our education system.

The reality of today's system indicates a massive increase in the numbers of school-age children labelled mildly handicapped

on learning disabled. Between 1977 and 1985, following the passage of Public Law 94-142, the number of individuals categorized as learning disabled increased by 119% (Reynolds, Walberg & Wang, 1987). The resulting dilemma has been that children are placed into a variety of special education programs designed to meet their every need. The programs, each with their "own eligibility, accountability, funding and advocacy systems" reflect "excesses of 'proceduralism' . . . , are costly and scientifically questionable . . ." (Reynolds et al., 1987, p. 392).

Supporters of the general/special education merger agree that the system must accept the "concept of diversity as a normative mode for students . . . in the general classroom" (Lilly & Pugach, 1984, p. 50). Merger proposals, simply stated, call for ". . . a broad program of adaptive education for all students . . ." (Reynolds et al., 1987, p. 396).

In this author's opinion, the absence of recognition of effective special education strategies for use in the general classroom is extraordinary. Effectiveness research overwhelmingly concludes that a focussed, coordinated effort between general and special education systems is needed to ensure meaningful improvement in academic and social skills achievement among diverse student abilities (Reynolds, Walberg & Wang, 1986).

Background and Need

Supporters of educational reform cite a need for reconceptualizing special education. One approach would be to think of special education as a "powerful administrative tool providing support for the entire instructional process" (Bickel & Bickel, 1986, p. 498). Reconceptualized, the expertise of special education practitioners would be utilized as part of a broad decision-making process for matching resources, such as time, personnel, data, management skills, with a range of educational needs. Programmatic integration would encompass the instructional processes experienced by all students (Bickel & Bickel, 1986). Focussing on variations in academic instructional processes experienced by students has been found to be a more accurate primary treatment variable than focussing on educational settings as a treatment variable. Further, "researchers have been able to identify powerful instructional procedures that can positively affect student outcomes" (Bickel & Bickel, 1986, p. 498).

Although these arguments are presented as part of the rationale to more fully integrate special education services within the general school environment, one must look again at the realities faced by a majority of general teachers: Teachers can predict with near-certainty that they will have under-motivated students, poorly behaved students, slow learners and management challenges in their classrooms. In fact, general education teachers can assume that they will have

to be flexible and innovative in terms of their abilities to deal creatively with problems in the classroom.

With regard to academic achievement, however, there is a tendency among teachers to assume that their students know how to approach a learning task. This is especially true of secondary level teachers who expect their students to have mastered learning skills during elementary years (Alley, Deshler, Schumaker & Warner, 1983). Many people commonly believe that children know how to learn naturally. Educators do not necessarily approach teaching with the idea that information acquisition could be a more efficient process if taught overtly during elementary school years.

The author proposes that general educators examine the positive effects of teaching special education strategies to their students. Generally, these are learning strategies which teach how to approach learning a task, how to acquire information and how to retain and retrieve information.

The author hypothesizes that these same strategies taught explicitly to students with disabilities can also be taught to and practiced by normally achieving students at elementary and intermediate grade levels. Students who have the chance to master these skills during the years from third through sixth grades will internalize the positive rewards of knowing how to approach learning and problem solving. The potential for failure at the secondary level is also diminished.

Few, if any research studies exist which have overtly

examined the effects of implementing strategies originally used with learning disabled students and then introduced into a general classroom's curriculum. However, efficacy research has produced an ample supply of practical information over the past five years.

Much of this information has been the result of studies conducted with learning disabled students. Frequently, the studies occurred in either self-contained special education settings, laboratory conditions or mainstream classrooms. Mainstreaming research has produced important information about disabled and nondisabled peer interaction, peer tutoring strategies, changes in achievement levels and in teacher-student attitudes (Bender, 1986; Leavey, Madden & Slavin, 1984; Madden & Slavin, 1983; Osguthorpe & Top, 1987; Wang, 1981). General education's experimentation with special education strategies in the general classroom has been notably absent.

As early as 1982, The National Academy of Science panel stressed "the need for improving classification and placement guidelines and procedures for total school systems, not just for special education" (Reynolds, et. al., 1986 p. 27). At present, there are a number of influential educational practitioners who recommend combining methods that have a strong research record of effectiveness with comprehensive systems of instruction evolved from both general and special education. (Reynolds et al., 1986).

Review of Literature

It is with a cautious yet optimistic open mind that the author explores literature concerning some aspects of effective learning strategies. The guarded assumption is that learning strategies can benefit students of all abilities. It is also the author's hypothesis that explicit instruction of learning strategies will not only help dissolve the predictable failures of high-risk students but also aid in unifying the dynamics of the classroom so that all students are equally capable, motivated and successful.

What is special about explicit instruction of learning strategies? Research offers many explanations which describe in detail the complexities of learning processes. These explanations specify achievement outcomes resulting from implementation of various effective instructional strategies. An examination of all effective practices would be too large a challenge for the scope of this paper. Therefore, only a few key strategies will be addressed. A brief discussion of the relationship between the cognitive and social skills and learning ability will also be addressed.

Active Involvement

Strategies deserving examination for efficacy in the general education curriculum include those which develop metacognitive skills, social-cognitive skills and adaptive learning skills. The fundamental feature of all cognitive skill building

strategies is that exposure, practice and mastery of these skills require the learner's *active* involvement with the particular task or problem in question. In his research with cognitive behavior training, Gerber (1986), highlights the importance of teaching problem solving procedures simultaneously with basic skills in order to "establish patterns of conscious attention" (p. 5). Such conscious attention, fostered by engaging in *deliberate* planning and monitoring during the performance of an academic task, promotes a "self-managed, problem solving routine" (p. 7). Gerber believes that cognitive behavior training ought to be a formal part of the "everyday curriculum" because such training empowers students in their learning processes (p. 9).

Graham, Harris and Sawyer (1987), express another perspective on the important role of active involvement in the learning process. In their studies examining the application of metacognitive strategies for purposes of regulating writing behavior, they state that students should be "active collaborators" in the learning process (p. 1). Writing, in particular, necessitates task involvement and "evokes a variety of complex mental operations" (p. 1). Such task involvement implies a need for active participation.

A third orientation toward the efficacy of active involvement in the learning process is presented by Perez and Schuler (1987). They view the relationship between cognitive self-regulation skills and social-cognitive skills as utilizing not only active involvement via task strategies but as "active

perspective taking" (p. 8). Perspective taking requires both communicatively and cognitively developed skills. Perspective taking "capitalizes on a child's initiations and interests" (p. 8). Schuler and Perez value the role of social-cognitive skill building in the classroom. Mediated by these skills, students learn to mobilize their "internal motivational and cognitive forces" (p. 8).

Verbalizing

The framework to which this active collaboration or "conscious attention" adheres is comprised of a host of strategies which utilize self-instructional and self-regulating components. Two key features in all strategies of this type are verbalizing and self-questioning. When a person implements a self-questioning strategy, an active interfacing between both thinking and expressive processes has begun. With regard to this interfacing, Gerber states that "normally achieving students internalize useful and generalized task-handling routines after relatively short exposure to either teacher or task-imposed structure" (p. 8). In other words, normally achieving as well as fast learners typically do not require as much external structure or management as learning disabled students (Gerber, 1986). This perspective of actual occurrence in normal learners is comparable to teacher assumptions about learning abilities. If learning appears to have occurred, the teacher moves on to a new concept. But has the student been drawn in to the learning process by utilizing active, self-motivating strategies based on an

ability to self-question? What would happen if students were provided with explicit guidance in how to use the tools of self-instructional strategies? Would their understanding of material be more profound? Would their ability to generalize, integrate and maintain information within school and nonschool environments increase?

Understanding Purpose and Consequence

One of the inherent problems associated with learning abilities and formal instructional processes within our schools is often the lack of demonstrated maintenance and generalizability of content information. Franklin, Little and Teska's (1987) exploration of effective teaching strategies distinguishes between acquiring knowledge, cognition, and understanding the knowledge, metacognition. Their research concludes that because of knowing purpose and consequence of using a strategy, retention of control in application of learning strategies results.

Ghatala, Levin, Lodico, and Pressley (1985) examined the effects of training cognitive strategy-monitoring in children. Subjects consisted of 128 second graders from several elementary schools in a middle class neighborhood in the southwest United States. The major question of the study was whether subjects would maintain a single trained strategy when external prompts were removed. The design consisted of 3 levels of training, strategy utility, strategy affect, and instructed

strategy, effective and ineffective. The 3 comparisons within each strategy type were assessed via directional comparisons based on a per-comparison Type I error probability of .0167 and a familywise Type I error probability of .05 (p. 205). No other reports of reliability or validity were provided.

Results from use of a sentence strategy to remember paired-associate items indicate improvements of subject performance in all three conditions. One and 9 week maintenance sessions were conducted. A strong positive correlation ($r=.84$) was found between recall scores and sentence-generation strategy (p. 211). Overall, performance and maintenance ratings of subjects who received training were significantly higher than control subject ratings (p. 206).

As described by Franklin et al. (1987), understanding purpose and consequence is a part of "one's knowledge about one's own cognitive processes and products and anything related to them" (p. 9). This is metacognition. Metacognitive strategies help one to recognize any difficulties experienced while trying to learn something, to check and double-check a fact before accepting it, to recognize available alternatives and to practice study strategies like writing brief notes down to aid in remembering (p. 9). They cite research indicating strong empirical evidence which supports the effectiveness of metacognition in developing the reading skills of both disabled and nondisabled students.

Training in strategies which enhance the maintenance and

generalizability of self-regulating behavior with reference to writing skills has also been shown to be effective. Graham, Harris and Sawyer (1987) illustrate a continuum of writing skills which necessitate the ability to generate language in the absence of a conversational partner, to activate memories, to generate units of text and to examine this generated information from the perspective of writer and reader (p. 9). By teaching task-specific metacognitive strategies for regulating writing behavior, students gain increased security and competence employing processes essential to effective writing. Self-instructions for regulating writing behavior include problem definition, focussing attention, planning and response guidance, self-reinforcement, self-evaluation and options for coping with errors (p. 8).

Harris, Graham and Freeman (1988) examined the effects of strategy training on metamemory skills among learning disabled students. Subjects consisted of 40 fourth grade learning disabled students from school districts in northern and central Indiana. They were randomly assigned to one of four study groups and received training in a five-step study strategy. Memory and metamemory skills in spelling are critical, since spelling requires immediate recall and retention (p. 333). The strategy was designed to increase students' abilities to predict their recall readiness and accuracy of correctly spelled words.

Instrumentation included two dictated-word tests of thirty words each and the Test of Written Spelling. This test

reports reliability coefficients increasing in value from .80. Validity coefficients range from .63 to .92 (p.334).

Study results showed that the Test of Written Spelling scores correlated significantly with prediction accuracy scores. Prediction accuracy improved across all subjects although the greatest improvement occurred in the teacher-monitored group. In this group, subjects were asked to independently use the word-study strategy and that assistance would be provided if necessary (p. 335). The study makes note of recommended research suggestions that "teacher-directed strategy training... be followed by interactive, combined strategy control and fading of teacher direction" (p. 337).

Acquisition steps involve an interactive process between teacher and students. The teacher describes and models strategies, verbalizing aloud as the strategy is performed. Students do the same thing, verbalizing and performing. This is a step which is crucial to active learning and often overlooked or assumed to be unnecessary with normal achieving students. However, once these achievers engage in active practice and self-instruction, and after they have received appropriate, corrective feedback, they will begin to internalize the verbalizations in a manner normal to their development. In the construct of learning strategies, the value of verbalizing and self-questioning behaviors is not taken for granted.

These same strategies have been documented to be effective as evidenced by studies cited in Gerber's (1986)

research on cognitive-behavioral training. He compiled a useful list of academic research indicating where further elaboration of cognitive-behavioral training is merited. The list targets research in all basic skill areas which has either "a) attempted a cognitive-behavioral intervention directly, b) used some form of explicit, direct instructional method that provides cognitive 'structure' or c) conducted analyses of cognitive components reflected in task performances" (p. 6).

Social Cognition

Social-cognition can be defined as the understanding of one's own and others' feelings and perspectives and the causality of human behavior at large (Perez & Schuler, 1987). Research by Perez and Schuler suggests that limitations in self-regulatory behavior such as planning, organization, self-checking and problem solving skills, are often associated with limitations in social-cognitive knowledge, especially cause/effect relationships. They cite the role of language, especially in the form of "self-talk" in planning, behavior organization, problem solving and social interactions. The cycle between metacognitive and social-cognitive processes is an interdependent one, as self-regulating behaviors, at least in part, emerge out of social interactions (p. 4).

As has been noted throughout this paper, much of existing research on learning strategy interventions has been the result of studies conducted with special education students. Often

their abilities to self-regulate their behavior and approaches to social and academic challenges are limited. Yet normally achieving students may be as prone to exhibiting passive learning behavior as learning disabled students. A common feature of passive learning is the absence of active problem solving strategies, whether directed toward academic, emotional or social challenges. The role of social-cognitive behavior strategies in generating problem-solving abilities by increased use of "self-talk" and self-questioning is vital.

Adaptive Learning and Inner Speech

Perhaps the evaluation of progress in the areas of metacognitive and social-cognitive skill development should be viewed in the context of an individual's ability to self-adapt in learning situations.

Corno and Rohrkemper's (1988) analysis of language development and its relationship to success and failure in academic/social interaction is relevant to this paper for a number of reasons: First, they clearly state that "classroom learning is social in origin" (p. 306). Second, they discuss the relationship of inner speech and learning. Third, they discuss the effects of mobilizing speech (external or internal) to guide students' abilities to adapt either themselves or tasks so that transformations in learning can occur.

Adaptive learning is described by the authors as the ability to view approaches to tasks and the tasks themselves as

malleable. The argument is based in part on the notion that learning is stressful, that students are often asked to engage in tasks in which they have no interest and that boredom is the stress of tedium (p. 298). As students learn to adapt themselves, tasks and learning situations to make better use of "learning opportunities before them," they gain empowerment through development of self-control and use of effective cognitive strategies (p. 298).

Corno and Rohrkemper relate the role of inner speech and cognitive learning strategies to the development of self or task adaptability. In this view, inner speech provides the supporting interface between the social/instructional environment of the classroom and the internal world of the student (p. 301).

Rohrkemper (1986) examined the function of inner speech in elementary school students' problem solving behavior. Subjects consisted of 84 students from 8 classrooms, grades 3 through 6, in a primarily black urban school (p. 304). Instrumentation included teacher-developed problem sets based on the ongoing math curriculum and a thought-matching questionnaire consisting of twenty-five statements. Reliability and validity of test instruments was not supplied.

Analyses of means indicated increases in students' attribution statements of positive effort and ability for low task difficulty, high performance conditions. When students' efforts to complete low difficulty tasks resulted in the right answers, their perceptions of causes enhancing their abilities focused on high

ability and sustained effort (p.311). Under these circumstances of perceived high performance, student engagement of self-related inner speech was much more likely to occur than in high task difficulty, low performance conditions. Results of this study raise interesting questions regarding the nature of the relationship between perceived self in action and more global self knowledge (p. 312).

Harris (1986) examined the effects of cognitive-behavior modification on inner speech and task performance during problem solving. Subjects included 30 learning disabled and 30 normally achieving students from public elementary schools in a suburban middle-class neighborhood.

The problem solving measure consisted of a jigsaw puzzle with one peice rigged so that it would not fit correctly. Spontaneous occurrence of inner speech and task performance were examined as well as the effects of cognitive-behavior modification on the use of inner speech and task performance.

Results indicated positive effects of self-instructional training on both inner speech and task persistence time. For example, the proportion of inner speech used by learning disabled students in the spontaneous group condition was 29%. This compared with 67% for the learning disabled students trained in self-instructional strategies. Normally achieving students in the spontaneous condition scored 67% and the trained group scored 82%. It is important to note that once trained in cognitive-behavior modification, learning disabled

students' proportion of inner speech use in task problem solving increased to levels demonstrated by normally achieving students.

The focus of this paper has been to examine the positive effects of implementing learning strategies, originally used with learning disabled students, in the general classroom curriculum. The argument has been presented that active engagement in the learning process is integral to the use of learning strategies, whether students have deficits or not. Active engagement is partly achieved through mobilization of verbalization and self-questioning strategies which, in normal or fast learners, may be internalized more quickly than in their counterparts. In Corno and Rohrkemper's view, this internal speech construct provides the structure for ensuing learner adaptability and thus, empowerment for success in the academic environment.

The structure of external speech must exist before the structure of inner speech. Development of effective use of external speech for approaching learning tasks is facilitated by explicit instruction in learning strategies. By mobilizing strategies such as verbalizing and self-questioning, students are engaging in active learning of an adaptive nature. In short, they are engaging in a cognitive-behavioral approach which empowers them as learners to initiate and transform information. As transformation and learning take place, the learner's ability to retain, maintain, retrieve, integrate and generalize information is enhanced.

Conclusion

Information from educational research leads one to believe that cognitive management training with normally achieving students may be inefficient.

These claims do not warrant abandoning the adoption of learning strategies as part of formal curriculum. Normally achieving students may demonstrate less need for provision of external structure. However they would benefit from engaging in active approaches to understanding, both concretely and conceptually, academic materials. Undisputedly, economy of time and effort regarding integration and implementability of learning strategies in the general classroom is an issue of serious proportions. But if cognitive skill building is examined in terms of its relationship to social interaction alone, a more balanced assessment of the scope and importance of learning strategies can be determined.

The need for such refinement in approaches to academic learning is urgent. Ambivalence toward academics and institutions of learning is widespread among a large majority of secondary level students. Strategies which engage younger-age students in meaningful learning serve a preventative purpose. Not only is the ability to approach learning tasks increased, but the sense of purposeful learning is broadened.

As the merging of special and general education becomes more apparent in the coming decade, the reorganization of instructional delivery systems will occur. Many effective

strategies will be examined. Strategies which have demonstrated efficacy with all ability ranges will be available for implementation in the general classroom.

Research in effective instructional strategies for use with learning disabled students has resulted in valuable knowledge about information processing. The place for implementation of this knowledge is just as much in the general classroom as in the special education classroom. With the advent of the merger movement and as many learning disabled students are being served in the general classroom, explicit instruction of metacognitive and social-cognitive instructional strategies is a sensible approach to follow.

References

- Alley, G. R., Deshler, D. D., Schumaker, J. B., & Warner, M. M.
(1983). Toward the Development of an Intervention Model for
Learning Disabled Adolescents: The University of Kansas
Institute. Exceptional Education Quarterly, 4 (1), 45-74.
- Bender, W. N. (1986). Effective Educational Practices in the
Mainstream Setting: Recommended Model for Evaluation of
Mainstream Teacher Classes. The Journal of Special
Education, 20 (4), 475-487.
- Bickel, D. D., & Bickel, W. E. (1986). Effective Schools, Classrooms
and Instruction: Implications for Special Education.
Exceptional Children, 52 (6), 489-500.
- Corno, L., & Rohrkemper, M. (1988). Success and Failure on
Classroom Tasks: Adaptive Learning and Classroom Teaching.
The Elementary School Journal, 88 (3), 297-312.
- Federal Register. Regulations for Implementing The Education for
all Handicapped Children Act of 1975 (Public Law 94-142).
Federal Register, 42 (August 23, 1977).
- Franklin, M. E., Little, E., & Teska, J. A. (1987). Effective Teaching
Strategies Used with the Mildly Handicapped in the
Mainstream. Focus on Exceptional Children, 20 (3), 7-10.

- Freeman, S., Graham, S., & Harris, K. R. (1988). Effects of Strategy Training on Metamemory Among Learning Disabled Students. Exceptional Children, 54 (4), 332-338.
- Gerber, M. M. (1986). Cognitive-Behavioral Training in the Curriculum: Time, Slow Learners and Basic Skills. Focus on Exceptional Children, 18 (6), 1-12.
- Ghatala, E. S., Levin, J. R., Lodico, M. G., & Pressley, M. (1985). Training Cognitive Strategy Monitoring in Children. American Educational Research Journal, 22 (2), 199-215.
- Graham, S., Harris, K. R., & Sawyer, R. (1987). Composition Instruction with Learning Disabled Students: Self-Instructional Strategy Training. Focus on Exceptional Children, 20 (4), 1-11.
- Harris, K. R. (1986). The Effects of Cognitive-Behavior Performance During Problem Solving Among Learning-Disabled and Normally Achieving Children. Journal of Abnormal Child Psychology, 14 (1), 63-76.
- Leavey, M., Madden, N. A., & Slavin, R. E. (1984). Effects of Cooperative Learning and Individualized Instruction on Mainstreamed Students. Exceptional Children, 50 (5), 434-443.

- Lilly, M. S., & Pugach, M. (1984). Reconceptualizing Support Services for Classroom Teachers: Implications for Teacher Education. Journal of Teacher Education, 35 (5), 48-55.
- Madden, H. A., & Slavin, R. E. (1983). Mainstreaming Students with Mild Handicaps: Academic and Social Outcomes. Review of Educational Research, 53 (4), 519-569.
- Munson, S. M. (1986). Regular Education Teacher Modifications for Mainstreamed Mildly Handicapped Students. The Journal of Special Education, 20 (4), 489-502.
- Osguthorpe, R. T., & Top, B. L. (1987). Reverse-Role Tutoring: The Effects of Handicapped Students Tutoring Regular Class Students. The Elementary School Journal, 87 (4), 413-423.
- Perez, L., & Schuler, A. L. (1987). The Role of Social Interaction in the Development of Thinking Skills. Focus on Exceptional Children, 19 (7), 1-11.
- Reynolds, M. C., Walberg, H. J., & Wang, M. C. (1986). Rethinking Special Education. Educational Leadership, 44 (1), 26-31.
- Reynolds, M. C., Walberg, H. J., & Wang, M. C. (1987). The Necessary Restructuring of Special and Regular Education.

Exceptional Children, 53 (5), 391-398.

Rohrkemper, M. (1986). The Functions of Inner Speech in Elementary School Students' Problem-Solving Behavior. American Educational Research Journal, 23 (2), 303-313.

Skrtic, T. M. (1987, November/December). An Organizational Analysis of Special Education Reform. Counterpoint, 9 (2), 15-19.

Stainback, S., & Stainback, W. (1984). A Rationale for The Merger of Special and Regular Education. Exceptional Children, 51 (2), 102-111.

Wang, M. C. (1981). Mainstreaming Exceptional Children: Some Instructional Design and Implementation Considerations. The Elementary School Journal, 81 (4), 195-219.